

**TOPOGRAPHIC SURVEY CONTROL POINT RECORD**

STATION LONG NAME	MU23
STATION NUMBER	MU23
4 CHAR ID	MU23
COUNTRY	IRAQ
LOCATION	AL MUTHANA
SURVEYING AGENCY	IGRS
DATE (OF DESCRIPTION)	04 JULY 2005

CONTENTS	YES	NO	NO OF PAGES
FIELD COORDINATE VALUES	X		1
OFFICE COORDINATE VALUES	X		1
STATION MONUMENT & SITE DETAILS	X		1
STATION DIAGRAM	X		1
ACCESS MAP	X		1
ACCESS DESCRIPTION	X		1
APPROACH PHOTOGRAPHS	X		1
CARDINAL POINT PHOTOGRAPHS	X		2

**RECORD OF VISITS**

DATE OF VISIT	NAME	UNIT	REMARKS

**ADDITIONAL DETAILS/ENCLOSURES**

CONTENTS	NO OF PAGES

## FIELD COORDINATE VALUES

STATION LONG NAME	MU23
4 CHAR ID	MU23
STATION NUMBER	MU23

THIS STATION IS NEW	YES
IDENTICAL / NEARLY IDENTICAL WITH	N/A

## FIELD VALUES FROM THE RECEIVER / HAND HELD GPS – IN WGS84

LATITUDE N	31°32'19.85"
LONGITUDE E	45°13'20.96"
HT (M)	+11
GRID ZONE DESIGNATOR	38R
UTM / MGRS GRID	38R NV 21120 89343
SURVEYING AGENCY	IGRS

FIELD INPUT BY: LCPL AVIS	UNIT: IGRS	DATE: 04 JUL 2005
FIELD CHECKED BY: SPR LOCKHART	UNIT: IGRS	DATE: 04 JUL 2005

# OFFICE COORDINATE VALUES

## WGS 84 ADJUSTED VALUES AS AT: 25 Aug 05

LATITUDE N	31° 32' 19.66850''
LONGITUDE E	045° 13' 20.79389''
SPHEROIDAL HT (M)	5.431
EGM96 GEOID MODEL HT (M)	-7.511
ORTHOMETRIC HT (M)	12.942
VERTICAL DATUM	WGS 84
GEOID MODEL USED	EGM 96
RELATIVE TO	CORS STATIONS
RELATIVE POSITION ACCURACY (M)	0.029
RELATIVE HEIGHT ACCURACY (M)	0.062
ADJUSTING AGENCY	OPUS
ADJUSTMENT DATE	25 AUG 2005

## LOCAL DATUM VALUES AS AT: 25 Aug 05

SPHEROID	N/A
PROJECTION	N/A
GRID	N/A
VERTICAL DATUM	N/A
LATITUDE N / S	N/A
LONGITUDE E / W	N/A
EASTINGS (M)	N/A
NORTHINGS (M)	N/A
SPHEROIDAL HT (M)	N/A
ORTHOMETRIC HT (M)	N/A
GRID ZONE DESIGNATOR	N/A
TRANSFORMATION AGENCY	N/A
TRANSFORMATION DATE	N/A

GRAVITY VALUE: N/A	TYPE OF STN: N/A	REF: N/A
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AIR PHOTO: N/A	REF: N/A	SCALE: N/A
IMAGERY: N/A	REF: N/A	SCALE: N/A

OFFICE INPUT BY: LCPL COWARD	UNIT: IGRS	DATE: 25 AUG 2005
OFFICE CHECKED BY: LCPL DICKEN	UNIT: IGRS	DATE: 25 AUG 2005

## STATION MONUMENT AND SITE DETAILS

STATION LONG NAME: MU23	
STATION NUMBER: MU23	4 CHAR ID: MU23
LOCATION: AL MUTHANA	COUNTRY: IRAQ
STATION ADDRESS: N/A	
TEL: N/A	FAX: N/A
LAND OWNER ADDRESS: N/A	
TEL: N/A	FAX: N/A
TYPE OF MARK: HARN	
CONDITION: GOOD	
MARK SETTING: FINE MARK ON REBAR	NO OF REBARS: 3

### MONUMENT PHOTO / SKETCH



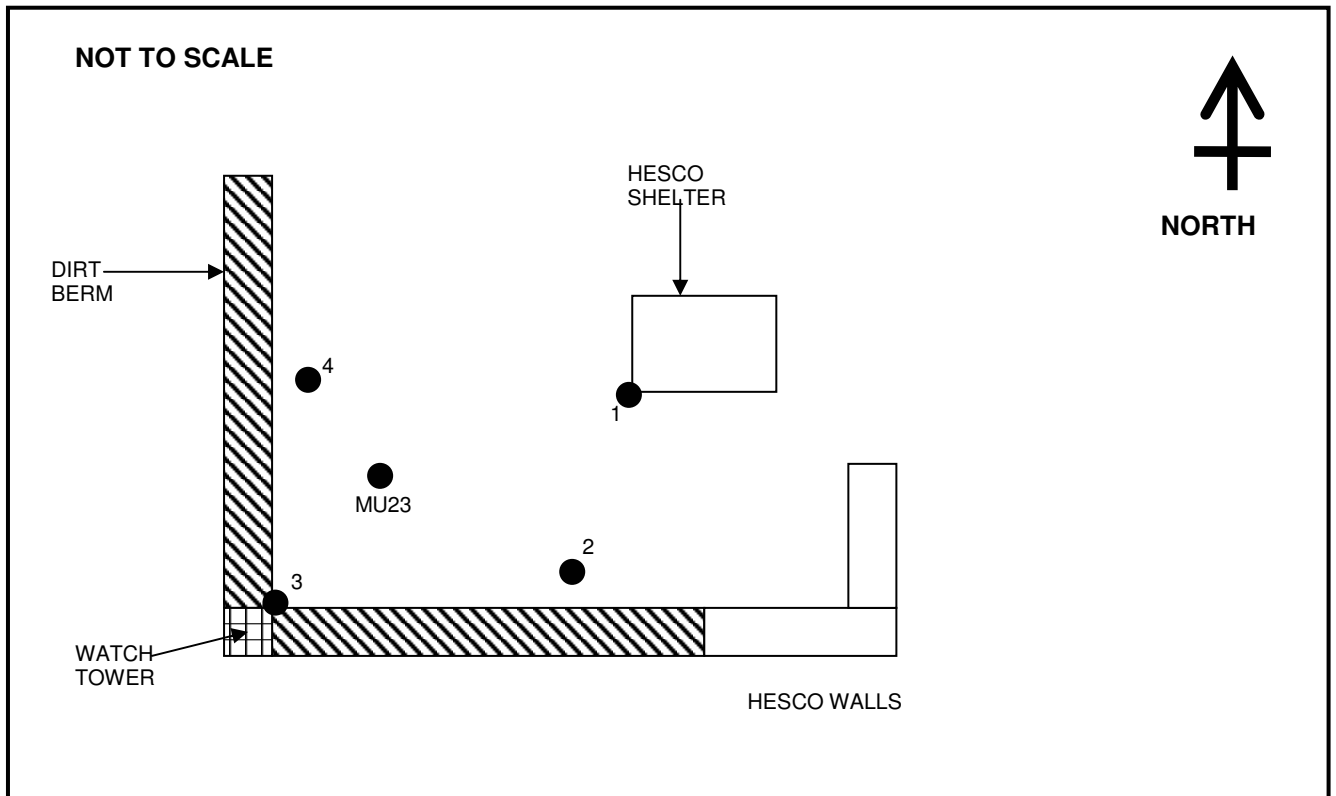
PREPARED BY: LCPL AVIS	UNIT: IGRS	DATE: 04 JUL 2005
CHECKED BY: SPR LOCKHART	UNIT: IGRS	DATE: 04 JUL 2005

# STATION DIAGRAM

STATION LONG NAME: MU23

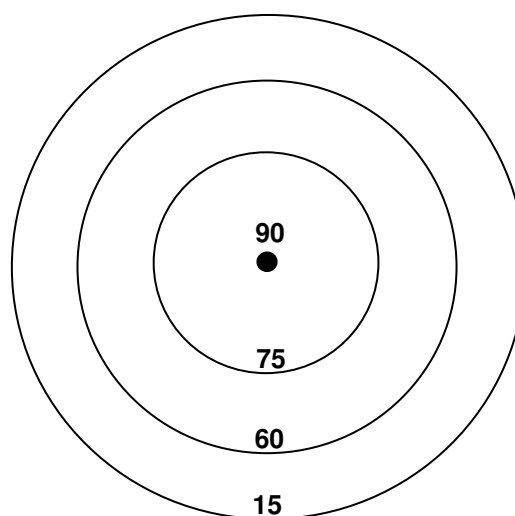
STATION NUMBER: MU23

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NO	DESCRIPTION	BRG/HORZ ANGLE	DISTANCE(M)
1	N/W CORNER OF HESCO SHELTER	266°	50
2	ORANGE PICKET	301°	24
3	NCORNER OF WATCH TOWER	55°	20
4	ORANGE PICKET	168°	13

## OBSCURITY DETAILS



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# ACCESS MAP

STATION LONG NAME: MU23

STATION NUMBER: MU23

4 CHAR ID: MU23

MAP DETAILS

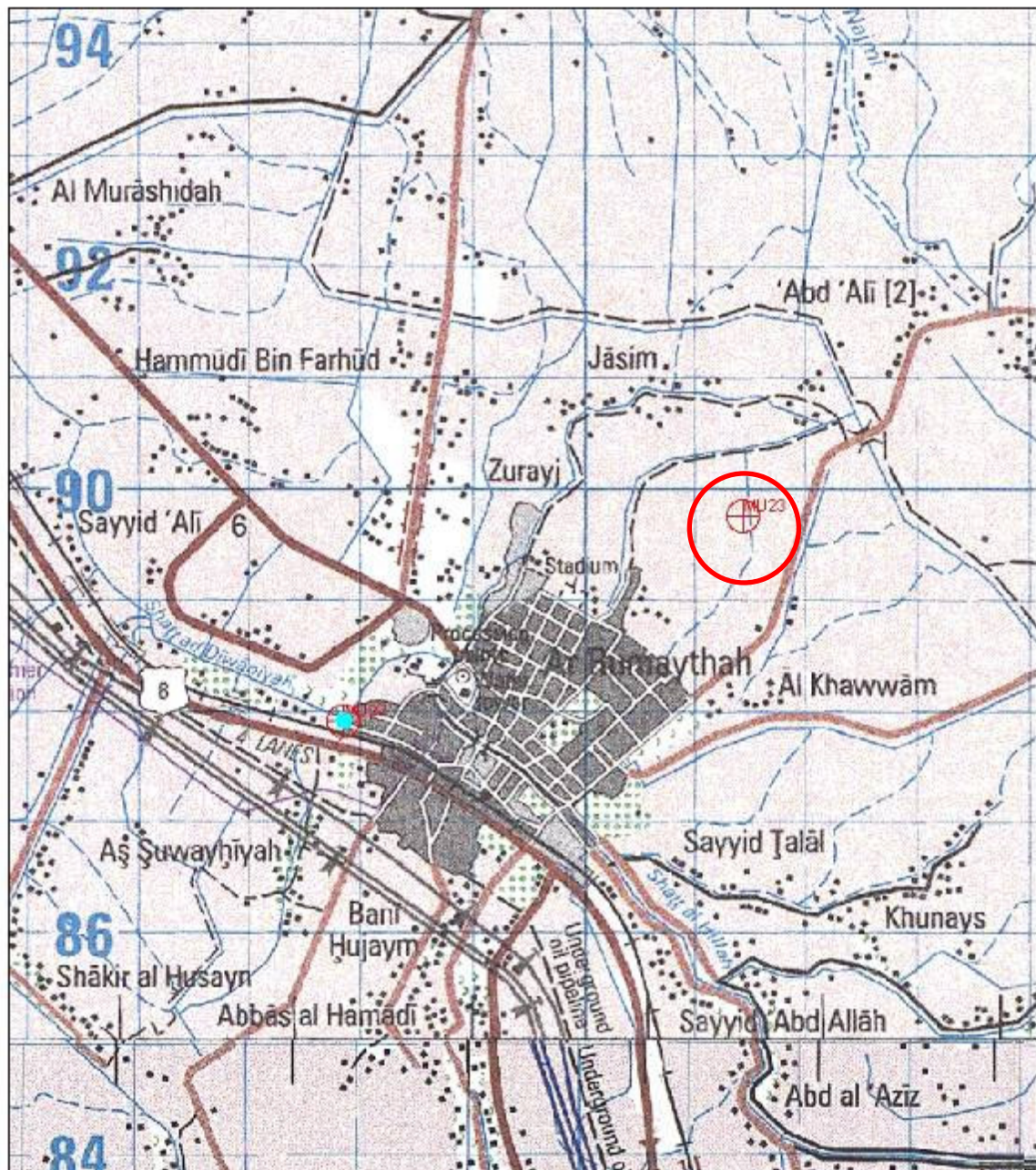
SERIES: K643

SHEET: 5053

EDITION: 2-NIMA

SCALE: 1:100,000

GR: 38R NV 21120 89343



PREPARED BY: LCPL AVIS

UNIT: IGRS

DATE: 04 JUL 2005

CHECKED BY: SPR LOCKHART

UNIT: IGRS

DATE: 04 JUL 2005

## ACCESS DESCRIPTION

<b>STATION LONG NAME: MU23</b>	
<b>STATION NUMBER: MU23</b>	<b>4 CHAR ID: MU23</b>

<b>MAP DETAILS</b>	<b>SERIES: K643</b>	<b>SHEET: 5053</b>
<b>EDITION: 2-NIMA</b>	<b>SCALE: 1:100,000</b>	<b>GR: 38R NV 21120 89343</b>

From gr 38R NV 265 610, turn north east on to metalled road for approximately 3km. Join metalled road at gr 38R NV 305 605. Head north west for approximately 32km. At gr 38R NV 1863 8738 turn north east for 150m. At gr 38R NV 1871 8751 bear east for 250m. At roundabout gr 38R NV 1846 8750 take 3<sup>rd</sup> exit and head north east for approximately 600m to roundabout at gr 38R NV 1925 8807 take 2<sup>nd</sup> exit and keep heading north east 1km to t-junction. At gr 38R NV 1975 8899 turn south east for approximately 1km to track at gr 38R NV 2067 8847. Turn onto track and head north east for approximately 1km to the TSU compound.

<b>PREPARED BY: LCPL AVIS</b>	<b>UNIT: IGRS</b>	<b>DATE: 04 JUL 2005</b>
<b>CHECKED BY: SPR LOCKHART</b>	<b>UNIT: IGRS</b>	<b>DATE: 04 JUL 2005</b>



# APPROACH PHOTOGRAPHS

STATION LONG NAME: MU23	
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## NEAR APPROACH FACING WEST



## FAR APPROACH FACING WEST



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## CARDINAL PHOTOGRAPHS

STATION LONG NAME: MU23	
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### NORTH



### SOUTH



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# CARDINAL PHOTOGRAPHS

STATION LONG NAME: MU23	
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**EAST**



**WEST**



TAKEN BY: SPR LOCKHART	DATE TAKEN: 04 JUL 2005
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